THE INFLUENCE OF OPEN SPACE UTILIZATION ON RESIDENTS’ ATTACHMENT WITH COMMUNITY: A CASE STUDY OF RURAL MARKET SQUARE IN SOUTH-WEST NIGERIA

Oluwagbemiga Paul Agboola*1, Mohd Hisyam Rasidi2, Ismail Said3

*1,2,3 Faculty of Built Environment, Department of Landscape Architecture, Universiti Teknologi Malaysia, Skudai, Johor Bahru, Malaysia

*2 Department of Architecture, Osun-State College of Technology, Esa-Oke, Osun-State, Nigeria

*Corresponding Author’s email address: agbofavour41@yahoo.com

Abstract

Open space such as market square is a communal ground where people carry out their various functional activities. This research work is undertaken in order to fill the knowledge gap in areas of people and place relationship, where improvements are needed to overcome challenges in the provision of facilities, design, and planning. The spatial conditions, development patterns, and relationship between the markets’ users and their attachment to the community were explored. A mixed-method approach is adopted in which, the spatial transformations of the market and neighbourhood was explored using ArcGIS version 10.3. Similarly, 382 respondents’ views were sought through self-administered questionnaires and analysed by Structural Equation Modelling (SEM) version 22. The qualitative findings revealed time-wise spatial expansions of the market and neighbourhood. The tested hypothesized model reveals that residents’ dependence and identity with market square had positive significant impacts on residents’ attachment to the community with standardised path coefficient values of 0.32 and 0.48 respectively. It is therefore recommended that appropriate machinery should be put in place towards improving the quality of the market square to further enhance users’ interaction cum the sustainability of the community in Nigeria.

Keywords: Open space utilization; community attachment; market square; spatial development; structural equation modeling

INTRODUCTION

Open space definitions range from peoples’ perception on its utilization, characteristics, and values. The terms include market square, green space, public space, squares and plaza, playgrounds, and community open space among others. Market squares (also known as Oja in Yoruba parlance) in this study, are the prominent trading space in most cities and towns across nations, acting as an avenue for traders and shoppers to exchange goods and services (Omole et al., 2014). The roles performed by the market as a multipurpose arena ranges from economic, social, recreational, cultural and religious activities that unite diverse community users as normal daily routines life and periodic. While the commercial, social and recreational activities occur on market days, the festive, cultural and religious activities are periodic. The market as a public space is where people from various backgrounds converge to involve in various activities, observe each other and learn about each other different ways of life (Cattell, et al., 2008).

It is clear that traditional market is identified with a strong historical antecedent of making immense contributions to the economy of any country (Vagale, 1974; Uzuegbunam, 2012; Omole et al., 2014; Zakariya et al., 2016). Various factors influence the use of market and the residents’ attachment to the community. Among which are (i) landscape and environmental properties, (ii) the provision of facilities and amenities, (iii) social and cultural properties and (iv) the
neighbourhood quality in terms of attractiveness and location. Recent development in landscape architecture has heightened the need for studying the concept of people and place relationship. This would not only increase the body of knowledge but offers detail comprehension of the planning, design, and management to overcome associated challenges. Parts of the challenges needed to be resolved included the need to improve the physical qualities and features of the market to better enhance its usage (Agboola et al., 2016; Zakariya, et al., 2016; Officha et al., 2012). In affirmation, Al-Maimani, Salama, and Fadli (2014) noted that the spatial and socio-cultural situation needed to be studied if a liveable traditional marketplace is to be achieved., future planning and improvements of the market square relied on these two significant aspects. The level of peoples’ using the market square is determined by the strategic location, easy access, and affordance of diverse activities. Meanwhile, the social and cultural attributes of market manifested through its historical values, social-cultural activities, religious and recreational affordance.

Researchers have studied markets globally, however, few studies have addressed the influence of market square utilization via residents’ identity, dependence and preferences on subsequent attachment to the community, which they reside in Nigeria. Hence, the goal of this study focused on the people, market square, and community relationships, while the reason to enhance the significant interaction was reinstated. Three hypotheses were generated to explore the relationships between the dependent and independent variables. The specific aim is to establish the level of relationship between residents’ utilization of the market square and the subsequent impact on attachment to the community. This study’s mixed-method approach bridged the gap in areas of inadequate information on market historical formation, socioeconomic and characteristics of markets’ users, spatial development patterns of markets in Nigerian. Insight into the markets’ accessibility and its categories would also be reinstated. At the end of this study, the following research questions would be answered. ‘What is a typical market square and how does it transform? How do people utilize the market square in Nigeria? What are the associated features of the market? What are the impacts of open space utilization variables such as identity and dependence on the residents’ attachment to the community? At the end, the significance of creating appropriate connections between people and market square would be established.

CONCEPTUAL FRAMEWORK AND REVIEW OF LITERATURE

Plethora of terms such as neighbourhood open space, public space, open parks among other has a common denominator as a shared space accommodating public with some factors facilitating the enhancement of peoples’ activities, participations, and wellbeing (Alubo, 2011, Manning, 1989). Manning (1989) while reviewing the connection between public space as social environment and well-being inferred that the interactions between individuals and groups that may lead to integration. Notably, irrespective of the various types of public spaces in Nigeria, affordance of public gathering, socio-cultural interactions and engagements are mostly cherished. In view of this, common characteristic exists between space and place. For instance, Madanipour (1996) describes space as an open and abstract expanse of land, while place formed the part of space that is occupied by a person or a thing and is endowed with meaning and value. Similarly, the place theorist Doreen Massey argues that place can be comprehended as free and open while examining the concept of space and time. Therefore, the identity of a place is a combination of continually changing social relations (Massey, 1994; 1999), a place created multifaceted human experiences and emotional responses (Relph, 1976), and visible place encompasses the physical settings and the spatial compositions while the social place intertwines with individual experiences, culture, and memory. The conceptual framework is presented in Figure 1.
Drawing on the broader framework of human and place relationship, this study hinges on place attachment concept that encompasses the emotional bonds that a person forms with a market square and their neighbourhood as a place. Many scholars have explored this concept in various fields of designs and ecological, and environmental psychology researchers, which included Canter (1977; 1997); Low and Altman (1992); Kaplan et al., (1998); Kaplan et al., (2008); and Mazumdar (2005); Mazumdar & Mazumdar (2004). Summary of the findings revealed peoples’ attachment to any place intertwines with the meaning ascribed to such places that represent an emotional or affective bond. In other words, place attachment is a concept that is based on interaction and relationships between persons, other groups, and the environment (Guiliani & Feldman, 1993; Williams & Patterson, 1999). An attachment to the market square is a reflection of users’ positive emotional bond that occurs over considerate periods of time. It connotes the values, symbols, and meanings associated with the market square.

Nash & Christie (2003) noted that people valued their sense of attachment and identity with a place that portrays a shared identity that associated with psychological benefits. Similarly, relationships among community residents enable appropriate shaping of peoples’ character and help towards maintaining the quality of the environment. Different scholars have hypothesized and studied perceptions of the bond between people and places (Low & Altman, 1992; Williams & Vaske, 2003). The context in which market square are constructed and valued emphasized their significance. This study's tested hypothesized model captured in clear terms three major propositions espoused from theoretical framework of the study: (i) that residents’ identity with the market square would impacts on their attachment to the community, (ii) that residents’ dependence on the market square would impacts on their attachment to the community, and (iii) residents’ choice of open space preference would impact on their attachment to the community. Succinctly, the hypotheses formulated are:

- **H1.** Residents’ identity with the market square is a positive function of the residents’ attachment to the community.
- **H2.** Residents’ dependence on the market square is a positive function of the residents’ attachment to the community.
- **H3.** Residents’ preferences choice of activities within the market square is a positive function of the residents’ attachment to the community.

![Figure 1: Conceptual framework (Source: Authors).](image-url)
Residents’ preference activities

Over the last few decades, evidence from literature have established residents’ involvement in various activities could lead to attachment to place or settings (Beatty, et al., 1988; Bloch, et al., 1989; Buchanan, 1985; Crosby & Taylor, 1983; Lastovicka & Gardner, 1979). Meanwhile, past studies have similarly posited that person engagement forms parts of place attachment antecedents (Moore & Graefe, 1994; Schreyer & Beaulieu, 1986). Environmental psychologists have suggested that personal identity could be explained based on people’s memories, ideas, preferences, and meanings, which consolidates their behaviour towards a physical setting (Ellin, 1999). On the broader spectrum of market context, Omole et al., (2014) and Anthonia (1973) affirmed that market as a public space offer various socio-cultural activities. For instance, a market square in Nigeria acts as a venue for people to experience their local culture. In this vein, youth courtship, social visits, exchange of knowledge and ideas among peers are the usual activities experienced within the market. Other social related activities included dancing, drumming, reuniting, carnivals, and other festivities. It should be noted that each market day is regarded as a social gathering day apart from the economic activities taking place in the market centres (Omole et al.,2014). Aside from economic roles, the market also acted as a religious centre, as well as a meeting place for the perpetuation of lineage rights and obligations in Yoruba land (Olorunfemi, 1999; Omole, 2004). The operation of the activities within the market vested solely on the responsibilities of the market men and women leaders (Iyalojas and Babalojas) who are appointed by the incumbent King (Oba). In view of this, all the shop owners and other market vendors belong to this umbrella body.

Place identity

Many scholars have expatiated on the place–identity relationships (Guiliani, 1991; Hidalgo & Hernandez, 2001; Korpela, 1989; Lalli, 1992; Twigger-Ross & Uzzell, 1996). Aside the planning field, host of others disciplines have dwelt with the relevant of the significance of place to individuals, and communities, on wider cultural identities scope. The studies of place identity exploring residents’ perception of a particular space have cut across fields such as geography, sociology, anthropology and psychology. Little studies have explored the essence of place identity on residents’ attachment to the neighbourhood market square. According to Proshansky (1978), place identity encapsulates the dimensions that define the individual’s personal identity in relation to the physical environment. Markets’ identity thus dwelt on series of users’ conscious and unconscious ideas, preferences, feelings, goals and behavioural skills in consonance with the neighbourhood. It is a factor that contributes to peoples’ perception that helps to shape the experiences of both the traders, shoppers, vendors and the tourists. It is evidently clear that connections exist between users and the markets’ setting that propels a psychological intuition being developed over time. Traders and shoppers often time identified with markets based on the establishment of a sense of personal uniqueness, and spatial-physical environments of the market. Also, the location, accessibility, and facilities were factors contributing to residents’ self-perception of the market. Hence, the evaluation of market as a place could be based on peoples’ positive evaluation termed place identity.

Place dependence

While a variety of studied have defined place dependence in diverse contexts, this study adopted its definition as a functional attachment to a place that buttresses the ability of a place to permits...
and achieves diverse goals and desired activities (Schreyer et al., 1981; Stokols and Shumaker, 1981). Markets’ dependence in this study’s context is conceptualized as a result of users’ functional attachment and significance contributions in affording various necessary activities. Market users’ behaviours and activities play a paramount role towards their emotional drives which thus affirmed markets’ dependence. In other words, awareness about market square supports, highly valued goals and values that establish peoples’ attachment to it. Varying degree of activities is initiated within the market square that ranges from economic, religious, socio-cultural and cult related activities (Adejumo et al., 2012). Other functions of market square include the exchange of goods and services as well as recreational and festive, activities (Smith, 1974; Sada, 1975; Adejumo, et al., 2012). In another perception, place dependence reflects the importance of providing amenities necessary for preferred activities (Stokols & Shumaker, 1981; Williams et al., 1992; Williams & Roggenbuck, 1989). In addition, past studied of Schreyer et al., (1981); and Schreyer & Roggenbuck (1981) reinstated the functional meaning of a place as the possibility of ensuring that the environment possesses attributes capable of enabling the pursuit of a target activity. In this study’s context, the significant of the market square as a neighbourhood setting to the residents is hinged on functionality, availability of necessary amenities, and users’ satisfaction among others.

Residents’ physical attachment to the community

Bonaiuto et al., (2003), and Brown et al., (2003), coined neighbourhood attachment has a link between residents’ emotions and bonds with their environment. Literature has conceived natural community as a place where people maintain high levels of local social interaction, which would impact positively upon neighbourhood attachment (Woolever,1992). This determines the level of residents’ attraction to the community and their subsequent decision to either stay or relocate to another place. Similarly, the study of Lewicka, (2011) revealed that neighbourhood quality and attachment has thus far relied upon residents’ own perceptions rather than independent observations. This is problematic because neighbourhood perceptions cannot be separated from the emotional bonds people have or developed with their neighbourhood. There is a growing interest towards involving communities in the process of defining place values, through the availability of important amenities and facilities. For instance, a past study in Australian sought to address ecological sustainability, and multiculturalism by focusing on people’s sense of belonging and attachment to a particular place (Cameron et al., 2004). The study’s findings indicated that people’ attachment to the community was a useful principle that could enhance community development and sustainability, which was equally supported by Agboola et al., (2015b). According to O’Brien and Ayidiya’s (1991) residents’ personal characteristics often time affect people perception on their neighbourhoods, while Cohrun (1994) opined that the membership aspect of the sense of community happened to be a major contributor to an individual’s attachment to a neighbourhood.

Consequently, individuals usually develop emotional attachments to the places in which they live. Hence, the attachment to place is coined as a positive affective interrelationship between individuals and their neighbourhood environments, an association that creates feelings of comfort and security (Rivlin, 1982; Shumaker & Taylor, 1983). Hummon (1992) noted that individual’s attachment to their abode differs significantly, while a plethora of studies have established that people with diverse socio-economic status develop varying degree of attachments to their neighbourhoods (Gans, 1962; Fried, 1982; Suttles, 1968). Similarly, it has been posited that ethnic residents show remarkable differences in the strength of attachment and dependence to their environment or places due to differences in socio-cultural backgrounds (Agboola et al., 2014; 2015a; Roark, 1993). For instance, the research findings of Agboola et al., (2014) and (2015a) revealed that Igbo resident groups depended more on the market square in
their neighbourhood than the Yoruba counterparts, which was attributed to the fact that Igbos are more enterprising and economically industrious.

Spatial characteristics and typology of market square in Nigeria

In the pre-colonial periods of Nigeria, market square symbolizes a distinctive neighbourhood landmark features created by villagers with the approval of King (obas) and his kinsmen, therefore, the period devoid of planning concept and expertise. At this period, markets’ significance was affiliated to the incumbent ruler; hence the connotation “Oja-oba”. Consequently, every settlement in Nigeria community has market within its locality for trading and marketing. The spatial characteristics of market square remain the vital landmark that is of significance and importance to the effective planning, management, and design. Hodder (1961) identified other criteria for the location of a market as based on threshold population density of about 50 persons per square mile. This was observed in connection to the thickly populated Yorubaland in South-west, Nigeria, where periodic markets are distributed fairly evenly at an average distance of about 7.2 miles (11.52 km) from each other.

Markets locations within the neighbourhood in Nigerian communities showcased the markets’ fundamental relevance, users’ attachment, and effective operations most especially in Yoruba land. For instance, the market square is located at the center of the neighbourhood in proximity to the Kings’ palace (afin). A typical spatial configuration of the market square and Kings’ palace as identified by Boateng (2011) is shown in Figure 2. Reasons for closeness were to protect the inhabitants from external aggression during the feud and for proper dissemination of information. Aside from this, the market acts as a converging point for various roads network, streets, and routes. However, as the neighbourhood expands and develops, so also the market does. Similarly, another important aspect of spatial characteristics of market square is its accessibility by prospective vendors and buyers who converge to participate in various religious, recreation, cultural and socio-economic activities. The spatial segregation of products sold in the market allow easy identification and easy purchase of items with minimum difficulty.

![Figure 2: Typical Yoruba community layout plan indicating the market square and Kings' palace (afin) (Source: Boateng, 2011).](image-url)
factor markets, product markets, and financial markets. These are markets that offer sales of agricultural products such as food crops, livestock, fish products, seeds, and seedlings. Second is the sectorial classification, which includes agricultural markets, industrial markets, commercial or services markets. The markets associate with agricultural machines tools and equipment made available for purchase for a host of agricultural uses. The third is the size or geographical capacity of market. This classification is based on the size and location of markets. It incorporates farm gates markets, route junction otherwise called roadside markets, the village markets, the rural town, and urban markets.

The categorization of the market based on the type of goods and services available cum the size and nature of neighbourhood area served, portray similar typology in China namely: regional markets, central markets, intermediate markets, standard markets and minor markets (Skinner, 1964). In another perspective, classification of the traditional rural market in Nigeria is based on frequencies and intensity of their operations (Hodder, 1961, 1965, Omole et al., 2013). In sum, the periodicity of the rural market includes (i) periodic daily market (ii) periodic night markets, and (iii) daily markets. Webber and Symanski (1973) revealed that the periodicity of markets has been attributed to residents’ low level of income, especially in developing countries. It is argued that the periodic nature of markets evolved concurrently with the settlement pattern at different operating hours by the settlers (Adalemo 1975). Other factors were attributed to lack of storage facilities and low population. Major differences that evolved between the traditional rural market and modern shopping complex are in terms of facilities, planning, and cultural root. The traditional rural markets rested on the cultural origin (Zakariya et al., 2016). Plethora of literature on markets in Nigeria reveals variations in market periodicities (market calendar/weeks) as obtainable at different parts of the world. For instance, Hodder and Ukwu (1969) identified a 2-day, 4-day and 8-day periodicities in Yorubaland, while at the same time, a 4-day, 8-day and 21-day periodicities in Ibo land were noted. According to Hill and Smith (1972), a seven-day market week occurred in almost all parts of Northern Nigeria while a 2-day periodic market has one market-less day, 4-day market has three, 5-day market.

RESEARCH SETTING
Nigeria falls within the sub-Saharan region of Africa continent, with the current population of about 187,896,647 as of Tuesday, September 13, 2016, based on the latest United Nations estimates. Nigeria population is equivalent to 2.48% of the total world population and ranks number 7 in the list of countries by population. The population density in Nigeria is 205 per Km² (532 people per mi²); while the total land area is 910,802 Km² (351,662 sq. miles). About 48.1 % of the population is urban (91,668,667 people in 2016) and the median age in Nigeria is 18 years. Nigeria, officially known as the Federal Republic of Nigeria, is a country that is located on the western coast of Africa. The country features 36 states and its Federal Capital Territory, which is known as Abuja. The country of Nigeria features over five hundred different ethnic groups, many different languages, and declared its independence from the United Kingdom on October 1, 1960. The study region falls within the Southwest part of Nigeria having six states; Ekiti, Lagos, Ogun, Ondo, Osun, and Oyo. It is majorly a Yoruba speaking area, in spite of this other dialects are found within the same state.

The weather conditions vary between the two distinct seasons in Nigeria; the rainy season (March - November) and the dry season (November - February). The dry season is also the bringer of the Harmattan dust; cold dry winds from the northern deserts blow into the southern regions around this time. The case study towns comprise of Ijebu-jesa, Iloko, and Ijeda towns, all located at Oriade local government areas of Osun- state in Western part of Nigeria. Ijebu-jesa is located at the core centre at a distance at a distance of about eight kilometres north of Ilesha and around 128 kilometres east of Ibadan and lies approximately on latitude 7.45 degrees north within the rain forest zone. The town is encircled by Iloko, and Ijeda towns at an average distant of two
kilometres and 1.5 kilometres respectively (Figure 3) These settings were selected for their multi-ethnic nature of its residents. Similarly, the communities host various open spaces including the case study market square that offers opportunities for interacting with diverse groups (Figure 4). Other open spaces included Transportation Park, neighbourhood streets, and parks, playing ground, open space within and around the buildings.

![Case study neighbourhoods' map](image-url)

Figure 3: Case study neighbourhoods' map (Source: Authors’ field work).
RESEARCH METHODOLOGY
This research adopted a mixed method approach. The qualitative section of the study utilised ArcGIS (version 10.3) to establish the land-use analysis of the case study market and the neighbourhood. This enables appropriate documentation of the three periods of physical transformation of the market within the neighbourhood as often used for landscape evaluation and planning (Collins et al., 2001). The three transformation periods explored was based on Oduwaye (1998) suggestion. These are, phase 1 (the year 1910 to 1959), phase 2 (the year 1960 to 1999), and phase 3 (the year 2000 to 2015).

Similarly, the quantitative aspect of the study involved the use of survey questionnaires in which the respondents were community dwellers aged 12 years and above. They reside in Ijebuje, Iloko, and Ijeda towns and are the users of the case study markets square. The selection was based on the stratified proportion of the ethnic groups. The survey questionnaires had been initially validated and tested by the pilot study carried out in the three neighbourhoods. First was the distribution of 100 pre-test survey questionnaires to the market users in the study areas, and they were asked to provide feedback in connection to their perception about the concerned areas of the case study market, as well as wording and ease of understanding the survey measurement items. The feedback was used in the revision of the main questionnaires in this study. The responses from the pilot survey were analysed, while the reliability of the measurement instrument was assessed using the Cronbach’s Alpha. After this the validity of the measurement instrument was scrutinized by five professionals and their feedbacks were adopted.

The significance of reliability and validity of measurement of the construct was reinstated by Golafshani (2003). Reliability shows the consistency of a set of measurement that described how consistency a similar measurement produces similar results (Zikmund, 2003). Hence, the higher the reliability of the measurement of construct the greater the consistency with fewer errors values. The validity indicates how the measurement represents what it intended to
measure. The main survey questionnaire of this study was sent to the sample size with the contents sought the respondents’ views on their level of dependence, identity, preferences, and community attachments. The targeted sample size for this study was 500, while efforts were put in place to have good numbers of responses. The structural equation modelling was used to test the study hypotheses. According to Anderson and Gerbing (1988) a minimum sample size should not be less than 200 in efforts to ensure appropriate use of SEM. Similarly, the sample above this benchmark will minimize abuse of goodness-of-fit indices.

Survey instrument and measurement
The main questionnaires survey instrument composed of two sections. The first section captured demographic information of the respondents in an open-ended question on a nominal scale, while the second section comprised of the measurement items that were used to capture each construct in the proposed model in 5-point Likert rating scale. The demographic features of the respondents included their sexes, age, educational background, occupations, neighbourhood affiliations, and frequencies of visiting the market square among others. However, the responses on market identity, dependence, preferences, and attachment to the community were represented on a scale of “strongly disagree” for “1” to “strongly agree” for “5”. Meanwhile, “2” meant for “disagree” and “3” and “4” meant for “neutral” and “agree” respectively. To determine the influence of open space utilization on residents’ attachment to the community, the measurement items listed in Table 2 were used to capture the construct. Overall, four constructs were established from the literature. Three constructs were conceptualized from Kyle et al., (2005) place attachment consisting of place identity, and place dependence. In view of this, place identity and place dependence were measured by three exogenous constructs having thirteen items that could influence open space utilization were adapted from Williams and Roggenbuck’s (1989); Proshansky et al., (1983); and Hummon (1992) works. However, this study adapted studies of several researchers in the recreational field who have examined the place preference in consonance with activity involvement to open space preference (Crosby & Taylor, 1983; Bricker, 1998; Bricker & Kerstetter, 2000; Schreyer & Beaulieu, 1986; Virden & Schreyer, 1988). Additionally, one endogenous construct of residents’ attachment to the community (Kasarda and Janowitz,1974; Lewicka,2011) measured by four items. Similarly, each of the four constructs was measured by corresponding seventeen unobserved variables as presented in Table 2.

ANALYSIS AND RESULTS
The qualitative result of the land use analysis for the three transformation periods of the market square within the Ijebu-jesà neighbourhood was presented in Table 1 and Figure 5, 6, and 7. The land use results revealed various percentages of spatial features that surrounded the market square such as (i) percentage covered by the residential and government structures and (ii) percentage covered by the green space and open spaces. The initial spatial area of the market square in phase 1 was estimated to be 1.04 km² (1.88 %) and got expanded in the phase 2 with about 1.83 km² (2.80 %) and 2.04 km² (2.30 %) respectively. The percentages covered market region, and other commercial centres such as retail shops, shopping centres, and open spaces within the market where goods and items were displayed. Similarly, the neighbourhood residential and Government occupied structures increases accordingly from phase 1 having 2.62 km² (4.74%); phase 2, is approximately 10.08km² (15.42 %) and phase 3 with about 29.07 km² (32.75 %). It captured residents’ abodes, community town hall, Kings’ palace (afin), and magistrate court amongst others. The result, however, revealed a drastic reduction in the areas covered by the green spaces and open spaces (undeveloped plots, open space between and around the buildings, grave-yards etcetera) from the phase 1 with 48.92 km² (88.41%), phase 2 showcased 39. 92 km² (61.07%) and lastly the phase 3 having 28.48 km² (32.09%).

Oluwagbemiga Paul Agboola, Mohd Hisyam Rasidi and Ismail Said

Archnet-IJAR, Volume 11 - Issue 1 - March 2017 - (44 -66) – Original Research Articles

Copyright © 2017 Archnet-IJAR, International Journal of Architectural Research
In respect to the quantitative result, out of the five hundred questionnaires (500) sent for feedback, four hundred and fourteen numbers (414) were retrieved, which gave the response rate of 82.8%. The response rate was a justifiable percentage as supported by Moser and Kalton (1971). The author affirms that the result of a survey could be biased and of little significant if the return rate is lower than 40%. Out of the retrieved questionnaires, fifteen (15) were incomplete, while seventeen (17) were wrongly filled or having invalid responses. Eventually, three hundred and eighty-two (382) responses were coded and used for data analysis by SPSS and Structural Equation Model (SEM) with Amos software. AMOS tools were developed for analysis of SEM as a multivariate analysis technique that encompasses standard methods such as multiple regression. SEM has the advantage of modelling relationships between latent variables after accounting for measurement errors (Bollen, 1989; Awang, 2015).

Table 1: Comparison of the land use analysis for the transformation periods of Ijebu-jesa market square and other adjoining features (Source: Authors).

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Area covered by the market square as commercial zone (Km²)</td>
<td>1.04</td>
<td>1.85</td>
<td>1.83</td>
<td>2.00</td>
<td>2.04</td>
<td>2.30</td>
</tr>
<tr>
<td>Residential and Government coverage area (Km²)</td>
<td>2.62</td>
<td>4.74</td>
<td>10.38</td>
<td>15.42</td>
<td>28.07</td>
<td>32.75</td>
</tr>
<tr>
<td>Green space and open space coverage area (Km²)</td>
<td>48.92</td>
<td>85.41</td>
<td>32.92</td>
<td>61.07</td>
<td>28.48</td>
<td>32.09</td>
</tr>
<tr>
<td>Total coverage (Km²)</td>
<td>52.58</td>
<td>95.03%</td>
<td>51.83</td>
<td>79.29%</td>
<td>59.59</td>
<td>67.14%</td>
</tr>
</tbody>
</table>

Figure 5: Areas covered by the markets (Source: Authors’ field work).

Figure 6: Areas covered by the residential and government structures (Source: Authors’ field work).
Demographic results
The demographic characteristics of gender, age, ethnic groups education, marital status, and years residents lived in town are presented in Figure 8, while the respondents’ neighbourhood affiliation is presented in Figure 9. About 33.2% of the respondents’ age stood within 19-29 years, while 27.5% were of age group 30-59 years. Meanwhile, 18.1 % were between the ages of 12 and 18 years. The average age of 21.2 % of the respondents was 60 years and above. More than half of the respondents (51%) were women. The vast majority of the survey respondents were Yorubas (60.5%) with only 25.1 % being Igbo and 14.4 % Hausa. Most respondents were with no formal education (38.2%) while 41.4% were holders of High school certificates. Respondents with bachelor / 1st degree were at an average of 17 %. Respondents’ length of residency in the study areas stood at 22% for 11 years and above, 32.2 % for between 7-10 years, 25.7 % for 1-3 years and 20.2 % for between 4-6 years respectively. The respondents’ neighbourhood affiliation amounted to 25.7 %, 31.4 %, and 42.9 % in favour of Iloko, Ijeda, and Ijebu-jesa township areas.

Figure 7: Areas covered by the green space and open spaces (Source: Authors).

Figure 8: Respondents’ demographic characteristics (Source: Authors).

Figure 9: Respondents’ neighbourhood affiliations (Source: Authors).
Model results
Based on Kline’s (2005) two-step modelling procedures, the measurement model, and hypothesized model were estimated using AMOS version 22. Table 2 reflected the analysis of the constructs and the corresponding indicators with the output result of descriptive analysis of the measurement. Exploratory factor analysis was carried out on the items through principal components analysis on overall seventeen items (17) comprising four (4) constructs were extracted namely: (i) five (5) items of market square preferences, (ii) four (4) items of market square dependence, (iii) four (4) items of identity with market square, (iv) four (4) items of residents’ attachment to the community. The result of Kaiser-Meyer-Olkin measure recorded reliable value of 0.794, while Bartlett’s test of sphericity is significant at p ≤ 0.001. The four factors extracted from the items had Eigenvalues of 2.21 greater than 0.7 as recommended by Hair et al., (2010). Therefore, the extracted four (4) factors explained 72.32% of the total variance which is higher than 60% recommended by Hair et al., (2010). The correctness of this study’s results was hinged on the Cronbach Alpha, KMO, and component matrix. Construct reliability estimate were calculated for all scales using the Cronbach alpha (α) which possesses the ability to adequately measure the internal consistency with a minimum value of acceptance. Table 3, indicated the result of the reliability coefficients, for all constructs which demonstrated adequate internal consistency with alphas ranging from 0.77 to 0.91 by exceeded thresh hold of 0.7 as suggested by Cortina (1993) and Nunnaly and Bernstein (1994). Markets’ preference demonstrated (α = 0.842); residents’ identity with the market square (α = 0.914); residents’ dependence on the market square (α = 0.957); and residents’ attachment to the community (α = 0.774).

Table 2: Analysis of the constructs and the indicators (Source: Authors).

<table>
<thead>
<tr>
<th>Construct</th>
<th>Codes</th>
<th>Indicators</th>
<th>Mean</th>
<th>Standard deviation (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Open space preferences</strong></td>
<td>OSP1</td>
<td>I preferred Market Square due to its economic related activities it provided</td>
<td>3.15</td>
<td>1.04</td>
</tr>
<tr>
<td></td>
<td>OSP2</td>
<td>I preferred Market Square due to its social related activities it provided</td>
<td>2.52</td>
<td>1.22</td>
</tr>
<tr>
<td></td>
<td>OSP3</td>
<td>I preferred Market Square due to its aesthetics</td>
<td>2.89</td>
<td>1.14</td>
</tr>
<tr>
<td></td>
<td>OSP4</td>
<td>I preferred Market Square due to its religious–based activities it provided</td>
<td>1.99</td>
<td>1.03</td>
</tr>
<tr>
<td></td>
<td>OSP5</td>
<td>I preferred Market Square due to its cultural heritage-based it provided</td>
<td>2.96</td>
<td>1.19</td>
</tr>
<tr>
<td><strong>Place dependence</strong></td>
<td>PLD1</td>
<td>Market Square are the best place for what I like to do</td>
<td>1.47</td>
<td>0.50</td>
</tr>
<tr>
<td></td>
<td>PLD2</td>
<td>No other place can be compared to Market Square</td>
<td>1.48</td>
<td>0.50</td>
</tr>
<tr>
<td></td>
<td>PLD3</td>
<td>Doing what I do in the Market Square is more important to me than doing it in any other place</td>
<td>1.43</td>
<td>0.49</td>
</tr>
<tr>
<td></td>
<td>PLD4</td>
<td>I would not substitute any other area for doing the types of things that I do in the Market Square</td>
<td>1.53</td>
<td>0.49</td>
</tr>
<tr>
<td><strong>Place identity</strong></td>
<td>PID1</td>
<td>Market Square mean a lot to me</td>
<td>4.32</td>
<td>0.84</td>
</tr>
<tr>
<td></td>
<td>PID2</td>
<td>I identify strongly with Market Square</td>
<td>4.29</td>
<td>0.85</td>
</tr>
<tr>
<td></td>
<td>PID3</td>
<td>I am very attached to Market Square</td>
<td>4.19</td>
<td>0.93</td>
</tr>
<tr>
<td></td>
<td>PID4</td>
<td>Market Square is very special to me</td>
<td>4.21</td>
<td>0.94</td>
</tr>
<tr>
<td><strong>Attachment to community</strong></td>
<td>RAC1</td>
<td>I find the community attractive</td>
<td>3.82</td>
<td>1.28</td>
</tr>
<tr>
<td></td>
<td>RAC2</td>
<td>I would not move out of the community</td>
<td>3.36</td>
<td>1.62</td>
</tr>
<tr>
<td></td>
<td>RAC3</td>
<td>I belong and actively involved in community groups’ activities</td>
<td>3.92</td>
<td>1.29</td>
</tr>
<tr>
<td></td>
<td>RAC4</td>
<td>I find available amenities within the community</td>
<td>3.92</td>
<td>1.33</td>
</tr>
</tbody>
</table>
Table 3: Items codes, and internal consistency of the constructs of construct (Source: Authors).

<table>
<thead>
<tr>
<th>Measurement constructs</th>
<th>Items Codes</th>
<th>No of items</th>
<th>Cronbach’s alpha (α) based on standardized items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open space preferences (OSP)</td>
<td>OSP1,5</td>
<td>5</td>
<td>0.842</td>
</tr>
<tr>
<td>Place dependence (PLD)</td>
<td>PLD1,4</td>
<td>4</td>
<td>0.957</td>
</tr>
<tr>
<td>Place identity (PID)</td>
<td>PID1,4</td>
<td>4</td>
<td>0.914</td>
</tr>
<tr>
<td>Residents’ attachment to the community (RA)</td>
<td>RA1,4</td>
<td>4</td>
<td>0.774</td>
</tr>
</tbody>
</table>

The SEM analysis combined a measurement model of the confirmatory factor analysis with a structural model in form of regression to examine the fit between sample data and the hypothesized model (Byrne, 2001). However, the Structural Equation Modelling (SEM) was used to examine the influence of each dimension of Open space preference (OSP), place identity (PID), and place dependence (PLD), on the dimension of residents’ attachment to the community (RA). Also, based on Kline (2005) suggestion, the confirmatory factor analysis (CFA) was used to establish valid measurement models (factors structures) for place utilization via attachment and residents’ attachment to the community, before examining the structural relationships between the two measurement models. The latent (unobserved) dimensions for open space utilization were open space preferences (OSP), place dependence (PLD), and place identity (PID). The latent dimensions for residents’ attachment to the community (RA) included four items. The internal reliabilities of the two dependent and independent item scales were assessed using the Pearson’s correlation analysis, in which a low correlation (0.20-0.40) was interpreted as a small relationship. A moderate correlation (0.40-0.70) represented a substantial relationship, and a high correlation (0.70-0.90) represented a pronounced relationship (Best and Kahn, 1998).

Having established a satisfactory Cronbach’s alpha coefficient greater than 0.7, the structural model fit indexes were assessed based on the Root Mean Square Error of Approximation (RMSEA), Goodness of fit Index (GFI), Tucker-Lewis Index (TLI) and the Comparative Fit Index (CFI). Meanwhile, all values were standardized prior to assessment of model fit. The RMSEA value of the measurement model is 0.056 which is less than 0.08 for acceptable fit recommended by Browne and Cudeck, (1993). While, the fit index for GFI, CFI and TLI exhibited an acceptable fit index of 0.931, 0.970 and 0.964 respectively greater than 0.90 as recommended by Browne & Cudeck, (1993) and Chau & Hu, (2001). The value of Chi-square / degree of freedom (χ2/df) recorded 2.188 less than 3.0 as recommended by Browne & Cudeck, (1993).

After the establishment of the measurement model, the next procedure included testing the structural through the exploration of the relationship between the construct open space utilization (OSP) on resident’s attachment to the community (RA) using the goodness of fit indices. The confirmatory factor analysis (CFA) of first order structural model with a total number of 17 items gave a model fit indices of Root mean square error approximation (RMSEA) value of 0.056, Goodness of fit index (GFI) of 0.970, Adjusted Goodness of Fit Index (AGFI) of 0.970, Comparative fit index (CFI) of 0.970, and Chisq/df of 2.188. In this model, all standardized items factor loadings exceeded 0.5 of value greater than the minimum recommended for newly developed items by Anderson and Gerbing, (1992) except OSP2 (0.48) items that exhibited values below-required standard. In view of this, the average variance extracted (AVE) for open space preference (OSP) was less than 0.5 which has affected the convergent validity of the model despite achieving a good fit index. To resolve this, items (OSP2) was deleted in order to achieve the required threshold (Awang, 2015). Afterwards, the average variant extraction (AVE) for open space preference (OSP) attained the normal threshold of 0.679 and therefore gave appropriate convergent validity of the 1st order model construct. Similarly, the average variance
extracted (AVE) values were greater than the square of correlation estimates between the constructs. Hence the discriminant validity of the constructs was supported.

Figure 10 shows the final structural hypothesized model testing the impact of market preference (OSP) on residents’ attachment to the neighborhood (RA). The overall fit indices for the hypothesized final structural model exhibited a good fit with values of Chisq/df = 2.761 as supported by Browne & Cudeck, (1993); RMSEA value was 0.068 while the GFI value was 0.922 (Chau & Hu, 2001). The value of CFI was 0.959 which met the required threshold reinstated by Browne & Cudeck, (1993). Meanwhile, the final result of unidimensionality, validity, and reliability for market square preference (OSP) on Residents’ attachment to the neighbourhood (RA) was presented in Table 4. Summary of structural hypothesized model testing impact of market preference (OSP) on residents’ attachment to the neighborhood (RA) was presented in Table 5. Path loadings of approximately 0.2 and higher were considered as practically significant loading (Cohen, 1988, 1992a, 1992b).

The result from the model indicated that two open space utilization dimensions significantly predicted the residents’ attachment to the community namely: (i) residents’ dependence on the market square (PLD) positively associated with residents’ attachment to the community (RA) with the regression path of 0.32, (ii) residents’ identity with the market square (PID) significantly predicted the residents’ attachment to the community (RA) with the regression path of 0.48. On the other hand, the structural path of markets’ preference (OSP) could not predict the residents’ attachment to the community (RA) with the regression path of 0.03. In view of these results, the hypothesis (H1) stating whether PLD could significantly influence RA was supported, and ditto to the hypothesis (H2) in which PID could significantly influence RA. Contrarily, it could be deduced that the hypothesis (H3) could not support the hypothesis of the influence of OSP on RA, and therefore, rejected.

Note: Place identity=PID, Place dependence=PLD, Open space preference=OSP, Residents’ attachment with community =RA

Figure 10: Final structural model of impact of impact of OSU on RA (Source: Authors).
Table 4: Final result of unidimensionality, validity, and reliability for market square preference (OSP) on residents’ attachment to the neighbourhood (RA) (Source: Authors).

<table>
<thead>
<tr>
<th>Items</th>
<th>Types of validity and reliability</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Unidimensionality</td>
<td>Convergent validity</td>
<td>All items have higher than 0.6. The correlation between constructs is less than 0.85. 1 item was deleted</td>
</tr>
<tr>
<td>2. Validity</td>
<td>Convergent validity</td>
<td>AVE&gt;0.50</td>
</tr>
<tr>
<td></td>
<td>Construct validity</td>
<td>All finesses for the models met the required level</td>
</tr>
<tr>
<td></td>
<td>Discriminant validity</td>
<td>The value of own factors was higher than other constructs</td>
</tr>
<tr>
<td>3. Reliability</td>
<td>Internal reliability</td>
<td>Cronbach’s alpha&gt;0.7</td>
</tr>
<tr>
<td></td>
<td>Composite reliability</td>
<td>CR&gt;0.70</td>
</tr>
</tbody>
</table>

Table 5: Summary of structural hypothesized model testing impact of market preference (OSP) on Residents’ attachment to the neighbourhood (RA) (Source: Authors).

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Hypothesized path</th>
<th>Standardized path coefficient</th>
<th>Ranking of hypothesis</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hypothesis (H1)</td>
<td>PLD significantly influence RA</td>
<td>0.32</td>
<td>Significant</td>
<td>Supported</td>
</tr>
<tr>
<td>Hypothesis (H2)</td>
<td>PID significantly influence RA</td>
<td>0.48</td>
<td>Significant</td>
<td>Supported</td>
</tr>
<tr>
<td>Hypothesis (H3)</td>
<td>OSP significantly influence RA</td>
<td>0.03</td>
<td>Not-Significant</td>
<td>Not Supported</td>
</tr>
</tbody>
</table>

DISCUSSION
Market square as a typical open space element out of the numerous remains a significant landscape feature in the lives of the rural dwellers. The qualitative result of the spatial land use analysis indicated expansion of the market square from phase 1(1910 to 1959) to phase 2 (1960 to 1999). The similar expansion was seen from phase 2 to the current phase 3 (2000 to 2015). Transformations responded to meet peoples’ needs and demands which created a new concept of spaces in which the market and the neighbourhood changed from its old linear settlement pattern into a new clustered form existing at present phase 3 (Figure 4). Notably, the expansion was traceable to the increase in the residents’ population and developments. However, the influx of people led to the construction of new streets, road network, more residential and commercial structures. All these culminated to subsequent improvement in the socio-economic activities and engagement of markets’ users. Expansion has occurred in the size of the access routes into the market square from narrow footpaths and roads, into wider tarred roads available at present. Various modes of transport are currently used in conveying agricultural produce from the farms, hamlets and neighbouring villages into the case study market, which includes cars, bicycles, tricycles, motor bikes, lorries amongst others. As it is currently experienced in phase 3, a greater percentage of residents use vehicles and motorbikes as their major forms of transportation, when compared to what was obtainable in phase 1. Consequently, residents’ movements to the market and within the neighbourhood have changed and brought about new spaces and configuration. Reduction in the percentages of green open spaces from phase 1 of development, through phase 2, and phase 3, concurred to the findings of Agboola (2011) that identified challenges in the reduction of appropriate landscaping of towns and cities in Nigeria in recent time. The author established that landscaping of occupied environment enhances habitable healthy environment.

The empirical findings of this current study established a positive significant relationship between residents’ identity and dependence with the market square. It also impacted positively on residents’ physical, mental and emotional attachment to their neighbourhood. Trading and
other activities within the market were identified as the major denominator in this regard. People trades in various farm produce such as yam, maize, vegetables, and cassava and other allied materials. These are always brought to the market from neighbouring towns and villages through various means of transportation such as trucks, commercial buses, taxis, tricycle, and motorbikes. Also, the cultural qualities of the market dictate the peoples’ attachment. The market favours a place where local products such as local wine, shoes, bags, among others could be purchased, as such acting as an avenue for tourist attractions. It equally permits unique witness of local lifestyle and interactions among the market vendors and shoppers resulting to cultural sustainability.

This study’s quantitative findings revealed that as the users’ utilization of the market square increases so also will their subsequent attachment to their neighbourhood increases via dependence and identity with the market. Diverse majority ethnic groups such as Igbos, Hausas, and Yorubas patronizes and depends on the market; while minorities groups like Nupes, Ijaw, Kanuri, Igalas, Efiks among others are not left out. Youth, married, retired workers, and artisans are parts of the actors engaged in the market, thereby having means of livelihood. Within the market square is often found able vibrant market men and women engaging in various retail trades and medium scale services. These people include the shoe cobbler, food vendors, hairdressers, tailors, public transport drivers, Okada and tricycle riders. A strong competition exists among the numerous vendors selling similar products at close proximity to each other. Therefore, each vendor/seller has a great task of marketing their goods or products to buyers through diverse enticement and appeasements. The ability to convince or win the potential buyers to himself/herself depends on individual skills, instinct, wisdom and character. In line with this, Omiunu and Onokorhoraye (1995) noted that prices of items and goods are not fixed, while it depends on the bargaining power of individual buyers. Hence, the principle of bargaining for a price of commodities depends on the agreeable terms of both parties.

The positive influence of markets’ dependence and identity on residents’ attachment to the community (Hypotheses H1 and H2) were traceable to the market existence for more than five decades which has consolidated residents’ psychological investment via social relationship in the neighbourhood as concurred by past studies of people-place relationship of Williams and Vaske, (2003) and Williams and Roggenbuck, (1989). Similarly, the two hypotheses, have affirmed the concept of attachment, indicating residents’ identity with the market square as an emotional attachment, which increased residents’ belongingness to the community. The residents’ markets’ dependence has portrayed a functional attachment due to the physical characteristics, accessibility, uniqueness, and affordance of various socio-cultural, religious, recreational activities. This form the reasons why landmark features such as churches, mosques, restaurant/bar, and shrines are found within and at the peripherals of market square. Residents’ emotional attachment to the market symbolizes their emotional bond as well as experiences and involvement. The result was in line with findings of Lewicka (2011) on the residents’ view, opinions, and perception on neighbourhood attachment, which dictates emotional bonds to their environment. Hence, the higher the residents’ dependence and identity with the market square the more their attachment to the neighbourhood. This finding consolidates the residents’ functional and emotional attachment to the market and the neighbourhood at large. To buttress this, the ownership of the market stalls is passed from generation to generation. Ownership title of most stalls within the market is always transferred from a particular parent to children and other siblings, unlike in the modern markets where the ownership solely vested in the government. The null hypothesis (H3) of the impact of open space preference (OSP) on residents’ attachment to the community (RA) in this study signified that preferred activities within the market square would not determine attachment to the community rather the utmost goals are the level of involvement, duration of activities, and the condition under which the activities were initiated as corroborated by the past studies of Madanipour, (1999); Cattel, et al., (2008); and Attah, (2013). It becomes
evidently clear to suggest improvements in the markets' facilities and spatial planning in order to enhance users’ preference activities.

CONCLUSION AND RECOMMENDATIONS
The cultural activities influence the transformation process and then impacts on the change of physical structure as well as social value. Human beings as the major user of built environment respond to the transformation process. Therefore, people can respond to the changes of physical elements and spaces arrangement in diverse ways. This study affirmed the peoples’ cultural responses and adaption. Examining the dimensions of peoples’ attachment to the market has demonstrated the factors that enhancing the residents’ quality of lives and indicators to both the social-economic, and environmental sustainability of the community. Improving the quality of life of citizens is connected to the level of engagement and well being among the people in the market as well as their connection with the host community. The interesting findings from this research work indicate the peoples’ attachment to the market is attributed to the following factors. First, the attachment developed due to long existence of the market. Second factor hinges on the presence of the shrine at the center of the market. The purpose of the shrine (ritual centre) is to offer sacrifice to the “market gods” in a bid to maintain peace in the market as well as the entire neighbourhood. This substantiates the level of purity and sacredness of the market square. It is traditionally believed that market deities meet and live within and around the markets’ vicinity. Therefore, it becomes necessary to appease them. The third factor is attributed to the closeness of the market to the Kings’ palace (afin). The fourth factor relied on the ownership of market stalls. The fifth factor symbolizes the cultural qualities of the market that preform the peoples’ attachment and tourists’ attractions. The implication of the empirical testing of the hypothesized model signified the influence of place attachment dimensions capable of influencing residents’ attachment to their neighbourhood, which could then promote the neighbourhood sustainability.

In conclusion, this study has explored and discussed the use of market square and its subsequent impact on the community as develops over a considerable period of time through residents' activities and commitment. Users’ socio-cultural activities have demonstrated an effective mechanism for creating neighbourhood attachment. The market and the community identity have been identified as a result of their uniqueness and significance. This study has contributed to the body of knowledge through the development of a framework model that provided an easy comprehension of the extent at which the market users showcased their feelings and interest to their environment. Therefore, study's finding is beneficial to the private, public, and the residents as major stakeholders in built environment on the significance of enhancing the people-place interactions for residents’ well-beings, quality of life and neighbourhood sustainability. The future planning and design of market should be of the highest standard in terms of quality in a bid to enhance residents’ well-being, community development, and sustainability. It is therefore recommended that appropriate machinery should be put in place in areas of facilities, amenities, design, and planning of market if further enhancement of people and place relationships is to be achieved.

ACKNOWLEDGEMENTS
This research was carried out as part of 1st Author Ph.D. research at the Universiti Teknologi Malaysia. The authors would like to thank the research assistants involved during the data collection periods. Appreciation to High (Chief) T.O. Olutola, the Odofin of Ijebu-jesa land.

REFERENCES


Williams, D.R., & Patterson, M.E. (1999). Environmental Psychology; Mapping Landscape Meanings for Ecosystem Management. In H.K. Cordell, & J.C Bergstrom (Eds), Integrating Social Sciences with


____________________

AUTHORS

Oluwagbemiga Paul Agboola
Researcher, PhD
Faculty of Built Environment, Universiti Teknologi Malaysia
agbofavour41@yahoo.com

Mohd Hisyam Rasidi
Senior Lecturer, PhD
Faculty of Built Environment, Universiti Teknologi Malaysia
b-hisham@utm.my

Ismail Said
Associate Professor, PhD
Faculty of Built Environment, Universiti Teknologi Malaysia
b-ismail@utm.my